

## **REMARKS**

Reconsideration of the above-identified Application is respectfully requested. Claims 1-28 are in the case. No amendments have been made to the claims. The Title has been amended.

Regarding the requirement for a new Title that is clearly descriptive of the invention, such a new Title is provided herewith. It is respectfully requested that this new Title be accepted and entered into the case.

Regarding the rejection of Claims 1-28 under 35 U.S.C. § 102(a) as allegedly being anticipated by Ruha et al., this rejection is respectfully traversed. Independent Claim 1 recites a method for charging a battery using a battery charger interface comprising the steps of generating an analog measurement signal corresponding to one or more parameters of the battery, converting the analog measurement signal into digital data, comparing the digital data with a digital reference corresponding to a predetermined duty cycle of a battery charger, and based on the comparison, generating a pulse width modulation sequence according to a functional mode of the battery charger interface. This permits construction of a battery charger suitable for low voltage processes.

The patent to Ruhr et al. apparently also relates to a method for charging a battery, but does so in a different way from that set forth in Claim 1. While it apparently generates an analog measurement signal, the voltage at node N1 in Figure 5, it does not convert that signal into digital data which is then compared with a digital reference corresponding to a predetermined duty cycle of a battery charger. Rather, the signal is a voltage that is compared with another voltage, i.e., the voltage at node N. in a summing junction 30 to produce a voltage difference signal  $U_{diff}$  that is filtered in a low pass filter 32, which may, for example, be a passive RC network, producing a  $U_{diff\_filtered}$  signal. The  $U_{diff\_filtered}$  signal is provided to a comparator 34 which detects the sign of the relative magnitude of the  $U_{diff\_filtered}$  signal in an over-sampled fashion and thereby produces a one bit output signal. In other words, the conversion to

digital data occurs **after** a comparison of analog signals, contrary to the requirement in Claim 1 that an analog measurement signal be converted into digital data which is **then** compared with a digital reference corresponding to a predetermined duty cycle of a battery charger. The patent to Ruhr et al. thus teaches away from and requires more analog components than the invention as set forth in Claim 1. The other art of record is even less relevant.

It is therefore respectfully submitted that the patent to Ruhr et al. and, in fact, all of the art of record, whether considered individually or in any combination neither teaches nor suggests the invention as set forth in Claim 1, and for the reasons set forth above, Claim 1 is allowable over Ruhr et al. and all of the art of record. Claim 15, the only other independent claim in the case, includes similar limitations to those in Claim 1 and so is allowable for the same reasons. Claims 2-14 and 16-28 all depend, either directly or indirectly, from either Claim 1 and Claim 15 and so are allowable as well for the same reasons, as well as for the additional limitations found therein. For example, regarding Claims 7 and 18, Ruhr et al are completely silent on slope control.

For all of the above reasons it is respectfully requested that this rejection be reconsidered and withdrawn.

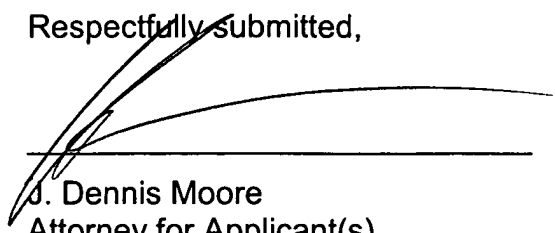
It is respectfully submitted that the claims recite the patentably distinguishing features of the invention and that, taken together with the above remarks, the present application is now in proper form for allowance. Reconsideration of the application, as amended, and allowance of the claims are requested at an early date.

While it is believed that the instant amendment places the application in condition for allowance, should the Examiner have any further comments or suggestions, it is respectfully requested that the Examiner contact the undersigned in order to expeditiously resolve any outstanding issues.

To the extent necessary, the Applicants petition for an Extension of Time under 37 C.F.R. §1.136. Please charge any fees in connection with the filing of

this paper, including extension of time fees to the Deposit Account No. 20-0668 of Texas Instruments Incorporated.

Respectfully submitted,



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